To determine whether each task requires saving all the values from standard input or can be implemented as a filter using only a fixed number of variables, we need to analyze the nature of each task. Here's the analysis for each task:

1. **Print the maximum and minimum numbers**:
   - **Filter**: This task can be implemented as a filter using only a fixed number of variables. You only need two variables to keep track of the maximum and minimum values as you read through the input.
2. **Print the sum of the squares of the n numbers**:
   - **Filter**: This task can be implemented as a filter using only a fixed number of variables. You only need one variable to accumulate the sum of the squares as you read through the input.
3. **Print the average of the n numbers**:
   - **Filter**: This task can be implemented as a filter using only a fixed number of variables. You need two variables: one to accumulate the sum of the numbers and one to count the total number of numbers.
4. **Print the median of the n numbers**:
   - **Requires Saving All Values**: This task requires saving all the values. To find the median, you need to sort the numbers, which requires having all of them in memory.
5. **Print the percentage of numbers greater than the average**:
   - **Requires Saving All Values**: This task requires saving all the values. You need to calculate the average first, which requires summing all the values and counting them. Then, you need to compare each value to the average, which means you need to have all the values stored.
6. **Print the n numbers in increasing order**:
   - **Requires Saving All Values**: This task requires saving all the values. To print the numbers in increasing order, you need to sort them, which requires having all of them in memory.
7. **Print the n numbers in random order**:
   - **Requires Saving All Values**: This task requires saving all the values. To shuffle the numbers and print them in random order, you need to have all of them in memory.

Summary:

- **Filter**:

    - Print the maximum and minimum numbers.
    - Print the sum of the squares of the n numbers.
    - Print the average of the n numbers.
- **Requires Saving All Values**:
    - Print the median of the n numbers.
    - Print the percentage of numbers greater than the average.
    - Print the n numbers in increasing order.
    - Print the n numbers in random order.

For the tasks that require saving all values, an array (or another suitable data structure) is necessary to store the input data. For the tasks that can be implemented as filters, a fixed number of variables is sufficient.